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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/711,692	11/13/2000	Edward F. Tokas	031221-057	8214

7590  
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07/16/2003

16

EXAMINER
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KNABLE, GEOFFREY L

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 07/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/711,692

Applicant(s)

TOKAS ET AL.

Examiner

Geoffrey L. Knable

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-49,95 and 97 is/are pending in the application.
- 4a) Of the above claim(s) 6,12,19 and 44-48 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5,7-11,13-18,20-43,49,95 and 97 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3. 6) ☐ Other: \_\_\_\_\_

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1. Applicant's election without traverse of species A1 (metal/elastomer bonding method) and B1 (metathesizable material between substrates) in Paper No. 9 is acknowledged.

Applicant indicated that the claims readable on the elected A1/B1 species are claims 1-5 and 7-43. However, upon review of the claims, it appears that this listing inadvertently but incorrectly includes certain claims while omitting others. In particular, it is not believed that claim 12 reads on the elected grouping as it is dependent upon claim 6 which is not within the elected grouping. Additionally, with the election of species B1, it is not believed proper to include claim 19 within the elected grouping. Additionally, it is not believed that claim 49 should have been excluded from the elected grouping as it depends from claim 13, not claim 44. Finally, it is not believed that claims 95 and 97 should have been excluded from the elected grouping. As such, the correct listing of elected claims is believed to be claims 1-5, 7-11, 13-18, 20-43, 49, 95 and 97. Applicant is requested to confirm that this is the correct grouping or indicate why it is not in any subsequent response.

2. Claims 6, 12, 19 and 44-48 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 9.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-5, 7-11, 13-18, 20-43, 49, 95 and 97 are rejected under 35 U.S.C. 103(a) as being unpatentable over [Grubbs et al. (US 5,312,940) and/or the admitted state of the prior art] taken in view of [Ofstead (US 3,935,179), Mühlebach et al. (US 6,281,307) or WO 97/38036] and further in view of [Lesser (US 2,978,354), Cole et al. (US 3,485,655) or Krieble (US 2,901,099)] and EP 424,833.

Catalytic metathesis polymerization using metathesizable materials and catalysts in general as well as with materials/catalysts of the claimed types is known and conventional in this art - Grubbs et al. '940 and the admitted state of the prior art (note that throughout the present specification, indications are given that the claimed metathesis materials and catalysts were known in this art) provide exemplary evidence in support thereof.

Further, one having ordinary skill in this art would have readily appreciated that such catalytic metathesis polymers have a variety of applications including the use thereof as an adhesive in bonding a variety of substrates to one another - Ofstead (note

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esp. col. 2, lines 32-40), Mühlebach et al. (note esp. col. 64, line 28 - col. 65, line 48) and WO '036 (note esp. pages 34-36) are cited as exemplary evidence of this. The known systems however apparently typically premix the catalyst with the monomer(s).

It is however well known with catalyzed thermosetting resin systems (although metathesis systems are not mentioned in particular) applied on a variety of substrates to provide the catalyst at the substrate surface, rather than mixed with the polymer to be applied, for the advantage of avoiding the shortened pot life of polymer/catalyst mixtures as well as avoiding complicated and costly methods of mixing the catalyst during application - Lesser (note esp. cols. 1-2), Cole et al. (note esp. cols. 1-2) and Krieble (col. 3, lines 19-26) provide evidence in support thereof. Further, EP '833, even though directed to substrates that are intended to contact the monomer in a mold in a RIM process, provides evidence that *separate application of a metathesis catalyst to a substrate surface* rather than mixing with the monomer would have been expected to suitably successfully catalyze the desired metathesis reaction.

Taken together, it is submitted that the ordinary artisan would have found it obvious to adhere substrates using a metathesis polymerization as an adhesives where the catalyst is pre-applied to the substrate surface rather than premixed with the monomer with an expectation of avoiding pot-life and other complicated mixing requirements, EP '833 providing sufficient evidence of a reasonable expectation of being able to successfully catalyze this particular reaction.

The specific metathesizable materials, catalysts and general process conditions of the dependent claims are considered to fall within the known, conventional and

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obvious known metathesis reaction materials and conditions (note esp. the admitted prior art and Grubbs as well as many of the other references), the known broad applicability of such materials rendering it obvious to utilize any of the conventionally utilized materials in this regard absent some conclusive showing of unexpected or unobvious results for any particular materials.

6. Claims 1-3, 7-11, 13-18, 29-40, 43, 49, 95 and 97 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. (US 5,137,785) taken in view of [Lesser (US 2,978,354), Cole et al. (US 3,485,655) or Kriebel (US 2,901,099)] and EP 424,833.

Suzuki discloses a composite including a metathesis polymer catalyzed by any known metathesis catalyst system and that may be located between upper and lower substrates (col. 6, lines 21-26), the metathesis polymer in such case forming or functioning as an adhesive interposed between and thereby bonding the substrates. Further, the substrates can be thermoplastic elastomer. Note that although it is recognized that the reference did not refer to the metathesis polymerized material as an "adhesive", it is considered to clearly be functioning in this role. Initially providing the catalyst at one of the substrate surfaces is however not suggested.

It is however well known when forming catalyzed layers of various thermosetting resin systems (although metathesis systems are not mentioned in particular) on a variety of substrates to provide the catalyst at the substrate surface, rather than mixed with the polymer to be applied, for the advantage of avoiding the shortened pot life of polymer/catalyst mixtures as well as avoiding complicated and costly methods of mixing the catalyst during application - Lesser (note esp. cols. 1-2), Cole et al. (note esp. cols.

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1-2) and Kriebel (col. 3, lines 19-26) provide evidence in support thereof. Further, EP '833, even though directed to substrates that are intended to contact the monomer in a mold in a RIM process, provides evidence that *separate application of a metathesis catalyst to a substrate surface* rather than mixing with the monomer would have been expected to suitably successfully catalyze the desired metathesis reaction.

Taken together, it is submitted that the ordinary artisan would have found it obvious to adhere substrates using a metathesis polymerization as taught in the primary reference to Suzuki et al. where the catalyst is pre-applied to the substrate surface rather than premixed with the monomer with an expectation of avoiding pot-life and other complicated mixing requirements, EP '833 providing sufficient evidence of a reasonable expectation of being able to successfully catalyze this particular reaction. The features of the noted dependent claims are considered to have been either explicitly suggested by Suzuki or represent obvious material and process selections consistent with the guidance provided by the reference in terms of material and process condition selections - only the expected results would have been achieved.

7. Note: The completed form 1449 from parent application 09/209706 has been received and has been redated, the art cited therein being reconsidered. A copy of this redated form 1449 is attached to this office action. Additionally, the 7-23-01 IDS has been considered and made of record. The Kent et al. patent (US 5,603,985) has however been crossed of form 1449 as this patent was previously cited and is of record on the other form 1449. It is additionally noted for the record that although the Kent et al. patent is directed to metathesis polymers as adhesion promoters, it is not clear that

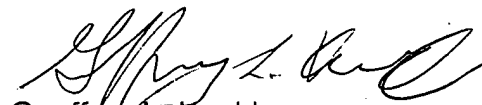
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these materials are forming adhesives. Further, and more importantly, the teachings of this patent suggest apparently that the metathesis polymerization reaction occurs prior to any application to the substrate surface. As such, a catalyst at the substrate surface as claimed would be inconsistent with the teachings of this reference.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey L. Knable whose telephone number is 703-308-2062. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael W. Ball can be reached on 703-308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.



Geoffrey L. Knable  
Primary Examiner  
Art Unit 1733

G. Knable  
July 13, 2003